

CLAIMS

1. A handling apparatus mounted on a moving member and conveying a workpiece to an installing position for installation, the handling apparatus comprising:

an apparatus body attached to the moving member;

a floating plate attached so as to be movable in a diametrical direction with respect to a center axis of the apparatus body, the floating plate to be mounted on a workpiece holding device for holding the workpiece;

a fastening rod provided in the apparatus body so as to be reciprocable in an axial direction, a lock plate for fastening the floating plate is attached to the fastening rod; and

a plurality of aligning pistons having taper surfaces engaged respectively with a plurality of aligning holes formed in the floating plate, the aligning pistons being mounted on the apparatus body so as to be reciprocable in the axial direction,

wherein the floating plate is fastened to the apparatus body by the lock plate, and the floating plate is returned to a reference position of the apparatus body by the aligning pistons.

2. The handling apparatus according to claim 1, wherein a fastening piston is provided in the fastening rod, and a fastening force to the floating plate is applied by fluid.

3. The handling apparatus according to claim 1, wherein a pressing force in a direction of moving the taper surfaces toward the floating plate is generated by the fluid applied to the aligning pistons.

4. The handling apparatus according to claim 1, further comprising a regulating pin attached to the apparatus body so as to protrude into a guide hole formed in the floating plate and regulating a moving amount of the floating plate.

5. The handling apparatus according to claim 1, wherein a steel ball is interposed in a slide surface of the floating plate.

6. The handling apparatus according to claim 1, wherein an air layer is formed in a slide surface of the floating plate.

7. The handling apparatus according to claim 1, wherein a lubricating oil layer is formed in a slide surface of the floating plate.